

Amendments to the Specification:

After the title, please insert the following subheading and paragraph:

Cross-Reference to Related Applications

[0001] This application is entitled to the benefit of and incorporates by reference essential subject matter disclosed in International Application No. PCT/SE2003/001685 filed on October 30, 2003 and Swedish Patent Application No. 0203198.7 filed on October 30, 2002.

Before paragraph [0002], please delete the heading “Background of the Invention and Prior Art” and insert the following subheading

Field of the Invention

Before paragraph [0004], please insert the heading

Background of the Invention

Please replace paragraph [0004] with the following amended paragraph:

[0004] Methods of the kind which is described above are known. With such methods, cladding tubes of Zr-based alloys which contain Nb are thus produced. For example, US-A-5 648 995 describes such a method and a cladding tube of this kind.

Please replace paragraph [0006] with the following amended paragraph:

[0006] There are mainly two kinds of modern light water reactors: boiling water reactors (BWR) and pressure water reactors (PWR). In these kinds of reactors different conditions prevail which call for different requirements on the parts which form part of the reactors. In a PWR, the fuel rods are cooled mainly by water that is in a liquid phase under high pressure. In a BWR, the pressure is lower and the water which cools the fuel rods is evaporated such that the fuel rods are surrounded both by water in a liquid phase and in a steam phase. Furthermore, the fuel assemblies have different construction in a BWR and a PWR. In one kind of BWR, the fuel rods in a fuel assembly extend all the way between a top plate and a

bottom plate which keep the fuel assembly together. In a PWR, on the other hand, the fuel rods are usually held in position with the help of spacers and do not reach all the way to the top plate and the bottom plate.

Please replace paragraph [0013] with the following amended paragraph:

[0013] These objects are achieved by a method characterized in that after that the cladding tube has been formed according to the above and after possible rolling steps with heat treatments between them, the cladding tube is finally annealed at a temperature and during a time such that said tube component is partly recrystallized but not completely recrystallized. The tube component is thus partially recrystallized (pRXA).

Please replace paragraph [0015] with the following amended paragraph:

[0015] Since the tube component is pRXA (and not completely recrystallized), it has become clear that hydrides which are formed tend to extend in mainly a tangential direction while the risk for radial hydrides is low. Thereby, an improved resistance against crack formation is obtained. The reason why radial hydrides are avoided is probably that certain tensions which originate from the production of the tube are maintained since the tube component is not completely recrystallized. These tensions have a consequence that the tendency for radial hydrides is reduced.

Please replace paragraph [0019] with the following amended paragraph:

[0019] As used herein % or ppm are used in connection with contents of different substances, it is, if nothing else is said, referred to weight percent of the respective substances.

Please replace paragraph [0033] with the following amended paragraph:

[0033] The present invention also resides in a cladding tube produced according to the method described in any of the preceding embodiments is used in a fuel assembly for a nuclear pressure water reactor. Thereby the above described advantages with such a cladding tube are achieved.

Before paragraph [0039], please delete the heading “Description of Embodiments of the Invention” and insert the following subheading

Detailed Description of Preferred Embodiments of the Invention

Please replace paragraph [0039] with the following amended paragraph:

[0039] Fig 1 shows schematically a fuel assembly for a PWR. The fuel assembly comprises a top plate 4 and a bottom plate 5. Between the top plate 4 and the bottom plate 5 a plurality of guide tubes 3 for control rods extend. Furthermore, the fuel assembly comprises a plurality of cladding tubes 1. These cladding tubes 1 thus contain a nuclear fuel material and are thereby called fuel rods. In this kind of fuel assembly for PWR, the fuel rods do not reach all the way to the top plate 4 and to the bottom plate 5. The fuel rods are kept in position in the fuel assembly with the help of spacers 2.